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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,143	01/14/2002	Gang Huang	HUANG 14-13-7	6844

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EXAMINER

REILLY, SEAN M

ART UNIT

PAPER NUMBER

2153

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/043,143

Applicant(s)

HUANG ET AL

Examiner

Sean Reilly

Art Unit

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This Office action is in response to Applicant's amendment and request for reconsideration filed on 4/27/2005. Claims 1-24 are presented for further examination. Independent claims 1, 9, and 17 have been amended.

37 CFR § 1.105 – Request for Information

1. Applicant has fulfilled the 37 CFR § 1.105 request in the office action sent 3/14/2005 by pointing out in a telephone conversation that the Home Phonline Networking Alliance (HomePNA) Specification versions 1.0, 2.0, and 3.0 are the equivalent of the cited ITU references.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically the specification fails to disclose *how a calibration value is determined*. Stating that the processor analyzes noise, propagation delay, and bit rate error values to produce a calibration value (for example see pg 5

lines 12-17 or pg 8 lines 18-22) fails to enable one skilled in the art how to *determine* a calibration value.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3-4, 6, 9, 11-12, 14, 17, 19-20, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Schober et al. (U.S. Patent Number 6,493,320; hereinafter Schober).
4. Regarding claims 1 and 9, Schober discloses a self calibrating network comprising: a first node (for example Figure 1, Routers 105a or 105b between link 110a) transmitting a calibration data packet (any packet sent while tuning; e.g. a test pattern); and a second node (for example Figure 1, Routers 105a or 105b) receiving said calibration data packet and determining (Figure 7, Component 600) a calibration value (frequency, power level) for said second node to optimize the transfer of data from said first node to said second node (reliable transfer at the fastest possible speed and lowest possible power level, Col 2 lines 32-42), said calibration value determined from at least one of available criteria comprising a noise measurement value (Col 2, lines 38-42), a propagation delay value (Col 2, line 54), and a bit rate error value.

5. Regarding claim 3, Schober discloses said calibration data packet contains a node identification (chip id and port number) associated with said first node (transferred during master slave configuration for tuning, Col 7, lines 50-55).
6. Regarding claim 4, Schober discloses said second node repeatedly accepts copies of said calibration data packet from said first node until the transfer of data from said first node to said second node is optimized (multiple packets transmitted for each component to be tuned during tuning algorithm 600, for instance Link Exercise 714, Col 16, lines 16-37).
7. Regarding claim 6, Schober discloses said first node repeatedly transmits a calibration data packet until said second node acknowledges an optimal calibration value has been determined (multiple packets transmitted for each component to be tuned during tuning algorithm 600, for instance Link Exercise 714, Col 16, lines 16-37).
8. Regarding claims 9, 11-12, 14, 17, 19-20, and 22, the limitations of claim groups 9, 11-12, 14, and 17, 19-20, 22 are similarly drawn to the limitations of claims 1, 3-4, and 6, respectfully. Thus, a similar rationale is used for rejecting the claims with the exemplarily tuning system of figure 2a or 2b providing the *means for* executing the functionality mapped in claims 1-6.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2, 5, 10, 13, 18, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schober et al. (U.S. Patent Number 6,493,320; hereinafter Schober) and the knowledge of one of ordinary skill in the art at the time of invention.

10. Regarding claims 2, 5, 10, 13, 18, and 21, Schober discloses said second node stores said calibration value in a memory, each link connected to a router has its own tuning system, e.g. tuning system 200b of router 105b for link 110a, which stores the optimized configuration for transferring data on that *link* after the tuning algorithm of figure 7 has successfully completed. While Schober discloses storing the calibration value in memory Schober fails to disclose storing the calibration value in a specific *calibration* memory however, the Examiner takes official notice that it was well known in the art at the time of the invention to centrally store data in memory with a corresponding identification. It would have been obvious to one of ordinary skill in the art at the time of the invention to store the calibration values for each tuning system within a router at a single memory location with an associated node identification (such as a chip id and port number, Col 7, lines 50-55), in order to have a central location for maintaining all calibration values used within a given router.

Response to Arguments

11. In response to Applicant's request for reconsideration filed on 4/27/2005, the following factual arguments are noted:

- a. With regard to the 112 1st rejection point #1, Applicant's specification disclosed how a calibration value is determined.

- b. With regard to the 112 1st rejection point #2, Applicant's specification disclosed how a calibration value is used to optimize the transfer of data between two nodes.
- c. Stewart failed to determine a calibration value from a noise measurement value, a propagation delay value or a bit rate error value.
- d. Stewart is non-analogous art.

In considering (a), Examiner respectfully disagrees with Applicant's argument.

Applicant asserts that the specification pg 4, line 10 – pg 5, line 10 discloses how a calibration value is determined. However, that portion of the specification fails to even mention the term "calibration value." The specification as a whole failed to disclose how a calibration value **relates** to a propagation delay value, bit rate error value, and noise measurement value. In the only sections of the specification where a calibration value is determined, a processor **analyzes** noise, propagation delay, and bit rate error values to magically produce a calibration value (pg 5 lines 12-17 and pg 8 lines 18-22). In clearer terms Applicant's discourse amounts to nothing more than 1) a black box receives some data (e.g. noise, propagation delay, and bit rate error values), 2) the black box performs some unknown *analysis* using the data, and 3) the black box produces a calibration value. Applicant asserts "a person skilled in the art...would be able to take the Applicants' disclosure and be able to formulate a calibration value" (Applicant response 4/27/05; pg 7 last ¶ - pg 8 1st ¶) however, the Applicant failed to produce any evidence to substantiate such a claim. Thus, Applicant's disclosure failed to enable one skilled in the art how to *determine* a calibration value.

In considering (b), Examiner agrees with Applicant's arguments, accordingly the 112 1st rejection with regard to point #2 is withdrawn.

In considering (c), Examiner respectfully disagrees with Applicant's argument. At the very least Stewart calculates a calibration value (i.e. speed, power level combination) (Col 2, lines 32-35), based on a propagation delay value (i.e. transmission speed of the a signal across the link) (Col 2, line 54).

In considering (d), Examiner agrees with Applicant's arguments, accordingly the art rejection applied to claims 7-8, 15-16, and 23-24 in view of Stewart is removed.

Conclusion

12. The prior art made of record, in PTO-892 form, and not relied upon is considered pertinent to applicant's disclosure.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean Reilly whose telephone number is 571-272-4228. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


7/15/2005


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